

IN THE CLAIMS

The status of the claims as presently amended is as follows:

1. (Currently Amended) An audio output apparatus comprising:
an array speaker unit having a plurality of speaker units;
a measuring unit that measures levels of a plurality of input sound signals including a first sound signal for a first sound beam to be produced by the plurality of speaker units and a second sound signal for a second sound beam to be produced by the plurality of speaker units;
a sound level adjusting unit that adjusts gains based on the measured levels measured by the measuring unit so that the plurality of sound signals have equal magnitudes;
an array speaker unit having a plurality of speaker units and a delay unit having a first delay circuit for each of the adjusted first sound signal[[s]] and a second delay circuit for the second sound signal; and
a directivity control circuit for controlling that controls a delay setting for each of the first and second delay circuits based on a desired focal position of each of the first and second [[a]] sound wave beams to be directed to and a position of each of the plurality of speaker units, to emit the first sound beam from the plurality of speaker units in a first directivity and to emit the second sound beam from the plurality of speaker units in a second directivity different from the first directivity
— wherein each of the speaker units receives a set delay from one of the delay circuits to emit a plurality of sounds from the speaker units in accordance with the adjusted sound signals in different directivities, and
— wherein each of the delay circuits controls the delay setting for each of the speaker units.

2. (Currently Amended) The audio output apparatus according to claim 1, wherein:
the measuring unit separates the plurality of sound signals into a plurality of frequency bands to measure levels thereof, and
the sound level adjusting unit assigns weights on the measured levels of the frequency bands with a predetermined weight for each of the frequency bands and adjusts the gains based on the weighted levels of the individual frequency bands so that the plurality of sound signals are in equal magnitudes.

3. (Currently Amended) The audio output apparatus according to claim 1, wherein:

the measuring unit separates the plurality of sound signals into a plurality of frequency bands to measure levels thereof, and

the sound level adjusting unit adjusts gains so that the plurality of sound signals are made to have equal magnitudes for each of the frequency bands based on the measured levels of the respective frequency bands.

4. (Currently Amended) An audio output apparatus comprising:

an array speaker unit having a plurality of speaker units;

a measuring unit that measures levels of a plurality of input sound signals including a first sound signal for a first sound beam to be produced by the plurality of speaker units and a second sound signal for a second sound beam to be produced by the plurality of speaker units;

a sound level adjusting unit that adjusts gains based on the measured levels measured by the measuring unit so that a level difference between at least two first and second sound signals specified by a viewer is made constant among the plurality of sound signals;

an array speaker unit having a plurality of speaker units and a delay unit having a first delay circuit for each of the adjusted first sound signal[[s]] and a second delay circuit for the second sound signal; and

a directivity control circuit for controlling that controls a delay setting for each of the first and second delay circuits based on a desired focal position of each of the first and second [[a]] sound-wave beams to be directed to and a position of each of the plurality of speaker units, to emit the first sound beam from the plurality of speaker units in a first directivity and to emit the second sound beam from the plurality of speaker units in a second directivity different from the first directivity

wherein each of the speaker units receives a set delay from one of the delay circuits to emit a plurality of sounds from the speaker units in accordance with the adjusted sound signals in different directivities, and

wherein each of the delay circuits controls the delay setting for each of the speaker units.

5. (Currently Amended) An audio output apparatus comprising:

an array speaker unit having a plurality of speaker units;

a measuring unit that measures levels of a plurality of input sound signals including a first sound signal for a first sound beam to be produced by the plurality of speaker units and a second sound signal for a second sound beam to be produced by the plurality of speaker units;

a compression unit that compresses a plurality of dynamic ranges of the plurality of sound signals to a predetermined value or below based on the measured levels measured by the measuring unit and outputs a plurality of sound signals after the dynamic ranges are compressed;

an array speaker unit having a plurality of speaker units and a delay unit having a first delay circuit for each of the first plurality of sound signal[[s]] and a second delay circuit for the second sound signal output from the compression unit; and

a directivity control circuit for controlling that controls a delay setting for each of the first and second delay circuits based on a desired focal position of each of the first and second [[a]] sound wave beams to be directed to and a position of each of the plurality of speaker units, to emit the first sound beam from the plurality of speaker units in a first directivity and to emit the second sound beam from the plurality of speaker units in a second directivity different from the first directivity

— wherein each of the speaker units receives a set delay from one of the delay circuits to emit a plurality of sounds from the speaker units in accordance with the sound signals output from the compression unit in different directivities, and

— wherein each of the delay circuits controls the delay setting for each of the speaker units.

6. (Currently Amended) An audio output apparatus comprising:

an array speaker unit having a plurality of speaker units;

a frequency control unit that limits or emphasizes frequency bands of a plurality of input sound signals including a first sound signal for a first sound beam to be produced by the plurality of speaker units and a second sound signal for a second sound beam to be produced by the plurality of speaker units;

an array speaker unit having a plurality of speaker units and a delay unit having a first delay circuit for each of the first sound signal[[s]] and a second delay circuit for the second sound signal controlled by the frequency control unit; and

~~a directivity control circuit for controlling that controls a delay setting for each of the first and second delay circuits based on a desired focal position of each of the first and second [[a]] sound-wave beams to be directed to and a position of each of the plurality of speaker units, to emit the first sound beam from the plurality of speaker units in a first directivity and to emit the second sound beam from the plurality of speaker units in a second directivity different from the first directivity~~

~~— wherein each of the speaker units receives a set delay from one of the delay circuits to emit a plurality of sounds from the speaker units in accordance with the sound signals controlled by the frequency control unit in different directivities, and~~

~~— wherein each of the delay circuits controls the delay setting for each of the speaker units.~~

7. *(Currently Amended)* An audio output apparatus comprising:

~~an array speaker unit having a plurality of speaker units;~~

~~a measuring circuit that measures levels of a plurality of input sound signals including a first sound signal for a first sound beam to be produced by the plurality of speaker units and a second sound signal for a second sound beam to be produced by the plurality of speaker units;~~

~~a gain control circuit that refers the measured levels measured by the measuring circuit and sets a gain coefficient to each of the plurality of sound signals;~~

~~a sound level adjusting circuit that adjusts the levels of the plurality of sound signals based on the set gain coefficient;~~

~~an array speaker unit having a plurality of speaker units and a delay unit having a first delay circuit for each of the adjusted first sound signal[[s]] and a second delay circuit for the second sound signal; and~~

~~a directivity control circuit for controlling that controls a delay setting for each of the first and second delay circuits based on a desired focal position of each of the first and second [[a]] sound-wave beams to be directed to and a position of each of the plurality of speaker units, to emit the first sound beam from the plurality of speaker units in a first directivity and to emit the second sound beam from the plurality of speaker units in a second directivity different from the first directivity~~

~~— wherein each of the speaker units receives a set delay from one of the delay circuits to emit a plurality of sounds from the speaker units in accordance with the adjusted sound signals in different directivities, and~~

— wherein each of the delay circuits controls the delay setting for each of the speaker units.

8. (*Currently Amended*) The audio output apparatus according to claim 7, wherein the gain control unit sets the gain coefficient so that the plurality of the levels of the plurality of input sound signals is nearly equal to each other.

9. (*Currently Amended*) The audio output apparatus according to claim 7, wherein the gain control unit includes an offset generating circuit that adds a certain amount of an offset amount to at least one level among the measured levels measured by the measuring circuit.

10. (*Currently Amended*) The audio output apparatus according to claim 7, wherein the gain control unit sets the gain coefficient so that dynamic ranges of the plurality of sound signals input to the array speaker unit are made to have a predetermined value or below.

11. (*Currently Amended*) The audio output apparatus according to claim 7, further comprising a band pass filter to which the plurality of sound signals are input to limit a frequency band thereof the sound signals.

12. (*Currently Amended*) The audio output apparatus according to claim 11, wherein each of the plurality of sound signals limited in the frequency band by the band pass filter is output to the measuring circuit.

13. (*Currently Amended*) The audio output apparatus according to claim 11, wherein each of the plurality of sound signals limited in the frequency band by the band pass filter is output to the sound level adjusting circuit.

14. (*Canceled*)

15. (*Currently Amended*) The audio output apparatus according to claim 1, wherein[:]] the audio output apparatus simultaneously reproduces a plurality of contents each including at least one of the first and second sound signals, the measuring unit measures the levels of the plurality

~~of the sound signals of the plurality of contents, and the sound level adjusting unit adjusts the gains so that the sound signals of the plurality of contents have equal magnitudes.~~

16. (*Currently Amended*) The audio output apparatus according to claim 4, wherein[[::]] the audio output apparatus simultaneously reproduces a plurality of contents each including at least one of the first and second sound signals, ~~the measuring unit measures the levels of the plurality of the sound signals of the plurality of contents, and the sound level adjusting unit adjusts the gains so that the level difference between the sound signals of the plurality of contents specified by a view is made constant among the sound signals.~~

17. (*Currently Amended*) The audio output apparatus according to claim 5, wherein[[::]] the audio output apparatus simultaneously reproduces a plurality of contents each including at least one of the first and second sound signals, ~~and the measuring unit measures the levels of the plurality of the sound signals of the plurality of contents.~~

18. (*Currently Amended*) The audio output apparatus according to claim 6, wherein[[::]] the audio output apparatus simultaneously reproduces a plurality of contents each including at least one of the first and second sound signals, ~~and further including a measuring unit that measures the levels of the plurality of the sound signals of the plurality of contents.~~

19. (*Currently Amended*) The audio output apparatus according to claim 7, wherein[[::]] the audio output apparatus simultaneously reproduces a plurality of contents each including at least one of the first and second sound signals, ~~and the measuring unit measures the levels of the plurality of the sound signals of the plurality of contents.~~